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For information, contact:
Daniel Edelstein, Copper Commodity Specialist
U.S. Geological Survey
989 National Center
Reston, VA 20192
Telephone: (703) 648-4978, Fax: (703) 648-7757
E-mail: dedelste@usgs.gov

Michael Leahy (Data)
Telephone: (703) 648-7964
Fax: (703) 648-7975
E-mail: mleahy@usgs.gov

Internet: http://minerals.usgs.gov/minerals

COPPER IN SEPTEMBER 2004

Average daily mine production of copper in September recovered from the slight downturn in August and was at the same high level as experienced in July, according to data compiled by the U.S. Geological Survey. Mine production for the first 9 months of 2004 was unchanged from that during the first 9 months of 2003 despite the ramp up of production at some mines that began during the third quarter of 2004. Average daily primary refined production in September rose by 8% compared with that of August, while production for the first 9 months of the year was about 2% below that for the same period of 2003. Average daily consumption of refined copper, which had risen to a 5-month high in August (traditionally a weak seasonal period), declined by about 2% in September. Consumption for the first 9 months of the year, however, was 9% above that for the equivalent period in 2003.

Update

COMEX copper prices, which had stabilized at about $1.30 per pound in the second half of October, began an upsurge in November, rising to almost $1.49 per pound on November 24, surpassing the 15-year high reached on October 8. London Metal Exchange Ltd. (LME) spot prices, however, traded at a 4-cent-per-pound discount to the COMEX price, and remained below their peak value of $1.49 per pound reached on October 11. At that time, the LME price was about 2 cents per pound higher than the corresponding COMEX price. Renewed concern over the adequacy of supply may have fueled the price rise. While most forecasts, including those by the International Copper Study Group (See Copper in July 2004.) and Phelps Dodge Corp. (2004§[1]), anticipated refined copper production deficits of between 700,000 metric tons (t) and 800,000 t, Bloomsbury Minerals Economics Ltd. reported that the shortfall could amount to more than 1 million metric tons (Mt) for 2004 owing to stockpiling of concentrates by smelters. Smelters were reportedly taking advantage of a surge in concentrate availability and a rise in treatment and refining charges to rebuild diminished inventories rather than boost their output. This was reported to be most prevalent in Asia, where the declaration of a *force majeure* on concentrate shipments from the Grasberg Mine in Indonesia in late 2003 had caused severe supply shortages, and smelters were seeking to reduce their vulnerability to future supply shortages. According to Bloomsbury calculations, smelter stocks, which had been declining over the past 3 years, could be rebuilt above 2001 levels by yearend 2004, and, contrary to the supply/demand balance for refined copper, the supply/demand balance projected for mined copper showed a 500,000-t surplus for 2004 (Platts Metals Week, 2004).

While CRU International Ltd. projected a 2004 refined copper production shortfall of only about 550,000 t, it too recognized that a bulge in copper concentrate production in the second half of 2004 was not expected to completely translate into greater refined output owing to rebuilding of stocks at smelters and underperformance at some new smelters, including those in India and Thailand. Though CRU acknowledged that the fundamentals supported a strong copper price, including LME stock levels at the lowest level in 14 years, it attributed much of the November rally in prices to weakness of the U.S. dollar, which at the end of November fell to an all-time low versus the euro. According to CRU, strength in the underlying fundamentals was indicated by the ready acceptance of increased annual cathode premia earlier in the year. Premia for the coming year, however, were reportedly falling: merchant premia in the United States have reportedly fallen from 8-8.5 cents per pound in the first quarter of 2004 to the current 7-7.5 cents per pound (CRU International, 2004a, b).

In its October 2004 Directory of Mines and Plants, the International Copper Study Group corroborates the expected near-term growth of copper concentrate production. Mine production capacity (concentrate plus solvent extraction-electrowon) was projected to increase by about 1,120 t (7%) in 2005 compared with that of 2004, with the vast majority (900,000 t) coming from new concentrate capacity. Mine capacity was projected to increase by an additional 1.8 Mt by 2008, only 750,000 t of which was expected to be from

[1]A reference that includes a section mark (§) is included in the Internet Reference Cited section.

concentrates. Projected smelter capacity growth of about 630,000 t in 2005 was not expected to keep pace with concentrate capacity growth. Capacity utilization at smelters in 2004 was only about 80%, however, and increased operating rates could accommodate the growth in concentrate output (International Copper Study Group, 2004).

References Cited

CRU International Ltd., 2004a, CRU monitor—Copper: CRU International, November, 12 p.

CRU International Ltd., 2004b, CRU monitor—Copper: CRU International, December, 12 p.

International Copper Study Group, 2004, New edition of directory of copper mines and plants: Lisbon, Portugal, International Copper Study Group press release, November 4, 1 p.

Platts Metals Week, 2004, Refined copper deficit to top 1-mil mt in 2004—BME: Platts Metals Week, v. 75, no. 46, November 15, p. 9.

Internet Reference Cited

Phelps Dodge Corp., 2004 (October 28), Webcast of its third quarter 2004 conference call, accessed November 2, 2004, at URL http://www.phelpsdodge.com.

TABLE 1
SALIENT STATISTICS OF THE COPPER INDUSTRY IN THE UNITED STATES[1]

(Metric tons, unless otherwise specified)

	Source table[2]	2003[p]	2004 August	2004 September	2004 January - September
Production:					
Primary:					
Mine, recoverable	(2)	1,120,000	98,900 [r]	97,200	835,000
Refinery:					
Electrolytic:					
Domestic and foreign	(4)	662,000	53,400	57,700	488,000
Electrowon	(4)	591,000	49,300	49,800	438,000
Total	(4)	1,250,000	103,000	108,000	925,000
Secondary recoverable copper:					
Refineries	(5)	53,300	3,870	4,660	38,000
Ingot makers[3]	(5)	119,000	9,890	9,890	89,000
Brass and wire-rod mills	(5)	676,000	58,100	56,900	539,000
Foundries, etc.[3]	(5)	64,600	5,380	5,380	48,400
Smelter, total	(3)	539,000	51,300	48,000	401,000
Consumption:					
Apparent	(8)	2,370,000	210,000	NA	NA
Refined (reported)	(7)	2,300,000	218,000 [r]	207,000	1,870,000
Purchased copper-base scrap	(9)	1,150,000	101,000 [r]	98,300	808,000
Stocks at end of period:					
Total refined	(11)	656,000	186,000 [r]	160,000	XX
Blister, etc.	(11)	56,800	65,700	71,600	XX
Prices:					
U.S. producer cathode (cents per pound)[4]	(12)	85.247	133.015	136.680	129.943
Imports:[5]					
Ores and concentrates[6]	(14)	27,100	--	NA	NA
Refined	(14)	882,000	78,700	NA	NA
Exports:[5]					
Ores and concentrates[6]	(15)	9,860	3,020	NA	NA
Refined	(15)	93,300	9,350	NA	NA

[p]Preliminary. [r]Revised. NA Not available. XX Not applicable. -- Zero.

[1]Data are rounded to no more than three significant digits, except prices; may not add to totals shown.

[2]Numbers in parentheses refer to the significant tables where these data are located.

[3]Monthly data and 2003 cumulative data estimated based on 2002 monthly average.

[4]Source: Platts Metals Week.

[5]Source: U.S. Census Bureau.

[6]Copper content.

TABLE 2
MINE PRODUCTION OF RECOVERABLE COPPER IN THE UNITED STATES[1]

(Metric tons)

Period	Recoverable copper			Contained copper		
	Arizona	Others[2]	Total	Electrowon	Concentrates[3]	Total
2003:[p]						
January - September	557,000	277,000	833,000	446,000	398,000	844,000
September	59,700	34,100	93,900	50,600	44,400	94,900
October	62,300	33,200	95,500	49,600	47,000	96,600
November	60,200	31,800	92,000	46,200	47,000	93,200
December	62,000	33,400	95,300	49,600	46,900	96,500
Year	741,000	375,000	1,120,000	591,000	539,000	1,130,000
2004:						
January	58,300	32,300	90,600	48,700	43,200	91,900
February	55,000	29,600	84,600	44,700	41,100	85,800
March	61,300	31,500	92,700	48,400	45,700	94,100
April	55,500	31,600	87,100	47,600	40,700	88,300
May	56,800	34,100	90,900	49,100	42,900	92,000
June	59,200	33,500 [r]	92,800 [r]	49,400	44,600 [r]	94,100 [r]
July	62,000	38,100 [r]	100,000 [r]	50,700	50,900 [r]	102,000 [r]
August	62,800	36,100 [r]	98,900 [r]	49,300	51,000 [r]	100,000 [r]
September	62,800	34,400	97,200	49,800	48,700	98,600
January - September	534,000	301,000	835,000	438,000	409,000	847,000

[p]Preliminary. [r]Revised.
[1]Data are rounded to no more than three significant digits; may not add to totals shown.
[2]Includes production from Alaska, Idaho, Missouri, Montana, Nevada, New Mexico, and Utah.
[3]Includes copper content of precipitates and other metal concentrates.

TABLE 3
COPPER PRODUCED AT SMELTERS IN
THE UNITED STATES, BY SOURCE[1, 2]

(Metric tons, copper content)

Period	Anode production
2003:[p]	
January - September	399,000
September	46,000
October	44,100
November	47,800
December	47,400
Total	539,000
2004:	
January	39,700
February	30,100
March	41,300
April	44,400
May	52,900
June	46,500
July	46,500
August	51,300
September	48,000
January - September	401,000

[p]Preliminary.
[1]Includes blister, anode and copper from primary or secondary sources.
[2]Data are rounded to no more than three significant digits; may not add to total shown.

TABLE 4
PRODUCTION OF REFINED COPPER, BY SOURCE AND METHOD OF RECOVERY[1]

(Metric tons)

Period	Primary materials			Scrap	Total refined
	Electrolytically refined[2]	Electrowon	Total		
2003:[p]					
January - September	500,000 [r]	446,000	946,000 [r]	40,700	987,000 [r]
September	57,100	50,600	108,000	4,220	112,000
October	53,600	49,600	103,000	4,490	108,000
November	50,500	46,200	96,700	4,050	101,000
December	57,700	49,600	107,000	4,080	111,000
Year	662,000	591,000	1,250,000	53,300	1,310,000
2004:					
January	51,300	48,700	100,000	4,190	104,000
February	50,300	44,700	95,000	3,920	98,900
March	52,300	48,400	101,000	4,330	105,000
April	59,000	47,600	107,000	4,360	111,000
May	55,600	49,100	105,000	4,150	109,000
June	58,900	49,400	108,000	4,460	113,000
July	49,200	50,700	99,900	4,080	104,000
August	53,400	49,300	103,000	3,870	107,000
September	57,700	49,800	108,000	4,660	112,000
January - September	488,000	438,000	925,000	38,000	964,000

[p]Preliminary. [r]Revised.

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

[2]From domestic- and foreign-source materials.

TABLE 5
COPPER RECOVERABLE IN UNALLOYED AND ALLOYED FORM FROM PURCHASED COPPER-BASE SCRAP[1]

(Metric tons, copper content)

Period	Refineries[2]		Ingot makers[3]		Brass and wire-rod mills		Foundries, etc.[3]		Total[4]
	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	
2003:[p]									
January - September	12,000	28,700	21,100 [r]	67,900 [r]	485,000 [r]	23,600 [r]	18,200 [r]	30,200 [r]	686,000 [r]
September	1,340	2,880	2,340	7,550	53,900	2,790	2,020	3,360	76,200
October	1,340	3,160	2,340	7,550	56,300	2,880	2,020	3,360	78,900
November	1,340	2,720	2,340	7,550	51,100	2,450	2,020	3,360	72,900
December	1,340	2,740	2,340	7,550	51,900	2,880	2,020	3,360	74,100
Year	16,000	37,300	28,100	90,600	644,000	31,800	24,300	40,300	912,000
2004:									
January	1,340	2,860	2,340	7,550	57,400	3,610	2,020	3,360	80,500
February	1,340	2,590	2,340	7,550	56,600	3,900	2,020	3,360	79,700
March	1,340	3,000	2,340	7,550	60,100	3,650	2,020	3,360	83,400
April	1,340	3,020	2,340	7,550	60,500	2,900	2,020	3,360	83,000
May	1,340	2,820	2,340	7,550	54,600	3,090	2,020	3,360	77,100
June	1,340	3,120	2,340	7,550	55,900	2,910	2,020	3,360	78,500
July	1,340	2,740	2,340	7,550	56,400	2,440	2,020	3,360	78,200
August	1,340	2,540	2,340	7,550	55,700	2,450	2,020	3,360	77,200
September	1,340	3,320	2,340	7,550	54,200	2,690	2,020	3,360	76,800
January - September	12,000	26,000	21,100	67,900	511,000	27,600	18,200	30,200	714,000

[p]Preliminary. [r]Revised.

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

[2]Electrolytically refined and fire-refined scrap based on source of material at smelter level.

[3]Monthly data and 2003 cumulative data estimated based on 2002 annual data.

[4]Does not include an estimate, based on reported 2002 data of 3,100 tons per month from new scrap and 2,020 tons per month of copper recovered from scrap other than copper-base.

TABLE 6
PRODUCTION, SHIPMENTS, AND STOCKS OF BRASS AND WIRE-ROD SEMIFABRICATES[1]

(Metric tons, gross weight)

Period	Production		Shipments		Stocks, end of period	
	Brass mills	Wire-rod mills	Brass mills	Wire-rod mills	Brass mills	Wire-rod mills
2003:[p]						
January - September	1,020,000 [r]	1,200,000	1,020,000 [r]	1,220,000 [r]	XX	XX
September	117,000	142,000	118,000	147,000	53,200	24,900
October	120,000	156,000	119,000	159,000	54,000	21,600
November	110,000	139,000	111,000	136,000	53,500	24,700
December	106,000	131,000	106,000	134,000	53,800	22,200
Year	1,360,000	1,630,000	1,360,000	1,640,000	XX	XX
2004:						
January	115,000	158,000	116,000	151,000	52,400	29,400
February	117,000	146,000	120,000	147,000	52,200	28,500
March	123,000	158,000	124,000	168,000	51,300	19,100
April	125,000	159,000	124,000	160,000	52,400	18,300
May	115,000	160,000	115,000	148,000	51,400	29,600
June	118,000	143,000	116,000	148,000	52,700	23,900
July	117,000	143,000	116,000	143,000	54,100	23,900
August	118,000 [r]	157,000	118,000 [r]	152,000	54,700 [r]	28,200
September	112,000	152,000	113,000	144,000	54,100	36,400
January - September	1,060,000	1,380,000	1,060,000	1,360,000	XX	XX

[p]Preliminary. [r]Revised. XX Not applicable.

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

TABLE 7
CONSUMPTION OF REFINED COPPER[1]

(Metric tons)

Period and item	Brass mills	Wire-rod mills	Other plants[2]	Total
2003:[p]				
January - September	441,000 [r]	1,220,000 [r]	50,700 [r]	1,710,000
September	48,000	143,000	5,630	197,000
October	49,500	157,000	5,630	212,000
November	49,600	140,000	5,630	195,000
December	46,900	128,000	5,630	181,000
Year	587,000	1,640,000	67,600	2,300,000
2004:				
January	47,900	156,000	5,630	210,000
February	49,600	146,000	5,630	201,000
March	54,300	158,000	5,630	218,000
April	52,400	158,000	5,630	216,000
May	45,300	156,000	5,630	207,000
June	46,000	136,000	5,630	188,000
July	50,900	146,000	5,630	202,000
August	48,500 [r]	164,000	5,630	218,000 [r]
September:				
Cathodes	31,700	155,000	818	187,000
Wire bars	--	--	(3)	(3)
Ingots and ingot bars	1,150	--	2,230	3,390
Cakes and slabs	(3)	--	(3)	(3)
Billets and other	13,500	W	2,580	16,100
Total	46,400	155,000	5,630	207,000
January - September	441,000	1,380,000	50,700	1,870,000

[p]Preliminary. [r]Revised. W Withheld to avoid disclosing company proprietary data included with "Cathodes." -- Zero.

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

[2]Consumption by ingot makers, chemical plants, foundries, and miscellaneous manufacturers is estimated based on 2002 annual data.

[3]Withheld to avoid disclosing company proprietary data; included with "Billets and others."

TABLE 8
U.S. APPARENT CONSUMPTION OF COPPER[1]

(Metric tons)

Period	Refined copper production	Copper in old scrap[2]	Refined general imports[3]	Refined exports[3]	Stock change during period	Apparent consumption
2003:[p]						
January - August[r]	838,000	132,000	379,000	49,400	(262,000)	1,560,000
August	106,000	17,700	72,700	4,080	5,710	186,000
September	108,000	18,600	46,000	4,330	(30,600)	198,000
October	103,000	19,000	69,100	4,640	(58,300)	245,000
November	96,700	18,100	63,300	8,470	(24,400)	194,000
December	107,000	18,600	57,200	22,300	(11,000)	172,000
Year	1,250,000	207,000	615,000	89,200	(386,000)	2,370,000
2004:						
January	100,000	19,400	43,700	11,000	(77,100)	229,000
February	95,000	19,400	45,400	18,500	(63,600)	205,000
March	101,000	19,600	62,500	23,900	(75,100)	234,000
April	107,000	18,900	59,300	28,400	(93,800)	250,000
May	105,000	18,800	56,300	3,700	(40,300)	216,000
June	108,000	19,000	40,400	2,720	(62,300)[r]	227,000
July	99,900	18,100	75,600	5,470	(23,800)[r]	212,000[r]
August	103,000	17,900	65,500	9,350	(33,600)	210,000
September	108,000	18,900	NA	NA	(26,200)	NA
January - August	818,000	151,000	449,000	103,000	(470,000)	1,780,000

[p]Preliminary. [r]Revised. NA Not available.

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

[2]Includes reported monthly production of copper from old scrap of copper-base, an estimate for annual reporters, and a monthly average of copper from non-copper-base materials based on 2002 data.

[3]Source: U.S. Census Bureau.

TABLE 9
CONSUMPTION OF PURCHASED COPPER-BASE SCRAP[1]

(Metric tons, gross weight)

	Smelters and refineries		Ingot makers[2]		Brass and wire-rod mills[3]		Foundries, etc.[2]		Total scrap used
Period	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	
2003:[p]									
January - September	12,200	29,100	31,400[r]	96,100[r]	608,000[r]	24,100[r]	31,700[r]	33,600[r]	866,000[r]
September	1,350	2,900	3,490	10,700	67,500	2,850	3,530	3,730	96,000
October	1,350	3,180	3,490	10,700	70,800	2,990	3,530	3,730	99,800
November	1,350	2,560	3,490	10,700	64,000	2,550	3,530	3,730	91,900
December	1,350	2,760	3,490	10,700	65,200	2,980	3,530	3,730	93,700
Year	16,200	37,600	41,900	128,000	808,000	32,600	42,300	44,800	1,150,000
2004:									
January	1,350	2,880	3,490	10,700	71,900	3,730	3,530	3,730	101,000
February	1,350	2,610	3,490	10,700	70,800	4,020	3,530	3,730	100,000
March	1,350	3,020	3,490	10,700	75,900	3,760	3,530	3,730	105,000
April	1,350	3,050	3,490	10,700	75,400	2,930	3,530	3,730	104,000
May	1,350	2,770	3,490	10,700	68,500	3,200	3,530	3,730	97,300
June	1,350	3,150	3,490	10,700	70,900	3,040	3,530	3,730	99,800
July	1,350	2,760	3,490	10,700	71,100	2,620	3,530	3,730	99,300
August	1,350	2,550	3,490	10,700	72,600[r]	2,580	3,530	3,730	101,000[r]
September	1,350	3,290	3,490	10,700	69,400	2,820	3,530	3,730	98,300
January - September	12,100	26,100	31,400	96,100	647,000	28,700	31,700	33,600	808,000

[p]Preliminary. [r]Revised.

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

[2]Monthly data and 2003 cumulative data estimated from 2002 annual data.

[3]Consumption at brass and wire-rod mills assumed equal to receipts.

TABLE 10
CONSUMPTION OF PURCHASED COPPER-BASE SCRAP[1, 2]

(Metric tons, gross weight)

	2003[p]		2004			
Scrap type and processor	January - September	Year	July	August	September	January - September
No. 1 wire and heavy:						
Smelters and refiners	50,400 [r]	67,200 [r]	5,610 [r]	5,610 [r]	5,610	50,500
Brass and wire-rod mills	283,000 [r]	377,000	32,800	31,100 [r]	30,000	300,000
No. 2 mixed heavy and light:						
Smelters and refiners	23,100 [r]	29,500	2,080	1,870	2,600	19,900
Brass and wire-rod mills	4,320	5,750	299	440	411	5,100
Total unalloyed scrap:						
Smelters and refiners	73,500 [r]	96,800 [r]	7,690 [r]	7,480 [r]	8,220	70,400
Brass and wire-rod mills	288,000	383,000	33,100	31,600 [r]	30,400	305,000
Red brass:[3]						
All plants	31,800 [r]	42,600 [r]	3,700 [r]	3,830 [r]	3,740	34,000
Leaded yellow brass:						
All plants	230,000	306,000 [r]	28,000 [r]	29,500 [r]	28,200	250,000
Yellow and low brass:						
All plants	37,700 [r]	49,400 [r]	3,310 [r]	3,320 [r]	3,360	30,100
Cartridge cases and brass:						
All plants	60,000 [r]	79,400	6,970 [r]	7,660 [r]	7,590	64,800
Auto radiators:						
Smelters and refiners	23,500 [r]	31,400 [r]	2,610 [r]	2,610 [r]	2,610	23,500
Bronzes:						
Smelters and refiners	6,050 [r]	8,070 [r]	672 [r]	672 [r]	672	6,050
Brass mills	4,040	5,390	481	472 [r]	464	4,770
Nickel-copper alloys:						
All plants	12,100 [r]	16,400 [r]	1,640 [r]	2,150 [r]	1,750	16,100
Low grade and residues:						
Smelters and refiners	7,920 [r]	10,600 [r]	880 [r]	880 [r]	880	7,920
Other alloy scrap:[4]						
Smelters and refiners	2,260 [r]	3,010 [r]	251 [r]	251 [r]	251	2,260
Brass mills	2,870	4,110	332	476	476	4,010
Total alloyed scrap:						
Smelters and refiners	73,500 [r]	98,000	8,170 [r]	8,170 [r]	8,170	73,500
Brass mills	345,000	458,000 [r]	40,700 [r]	43,700 [r]	41,900	370,000
Total scrap:						
Smelters and refiners	147,000 [r]	195,000 [r]	15,900 [r]	15,600 [r]	16,400	144,000
Brass and wire-rod mills	632,000	841,000 [r]	73,700	75,200 [r]	72,200	675,000

[p]Preliminary. [r]Revised.

[1]Does not include: consumption by foundries, chemical plants, and miscellaneous manufacturers, estimated to total about 7,240 tons of scrap per month based on 2002 annual data; monthly data include estimates of about 14,200 tons of scrap per month consumed by ingot makers.

[2]Data are rounded to no more than three significant digits; may not add to totals shown.

[3]Includes composition turnings, silicon bronze, zincy bronze, railroad car boxes, cocks and faucets, gilding metal, and commercial bronze.

[4]Includes refinery brass, beryllium copper, phosphor copper, and aluminum bronze.

TABLE 11
COPPER STOCKS AT END OF PERIOD[1]

(Metric tons)

Period	Crude copper[2]	Refined copper						
		Refineries[3]	Wire-rod mills[3]	Brass mills[3]	Other[4]	Comex[5]	LME[6]	Total refined
2003:[p]								
September	44,500	4,100	33,300	17,600	3,600	271,000	419,000	749,000
October	51,700	3,590	23,200	14,700	3,600	267,000	379,000	691,000
November	57,500	6,960	20,900	19,500	3,600	262,000	353,000	667,000
December	56,800	12,100	29,700	20,200	3,600	255,000	335,000	656,000
2004:								
January	49,900	9,840	22,500	12,500	3,600	239,000	291,000	578,000
February	48,100	10,100	25,200	16,300	3,600	219,000	240,000	515,000
March	43,200	10,800	30,700	14,200	3,600	213,000	167,000	440,000
April	62,900	8,510	19,100	16,700	3,600	172,000	126,000	346,000
May	69,100	11,100	27,500	18,000	3,600	132,000	114,000	306,000
June	60,600	5,680	26,600 [r]	19,600	3,600	95,100	92,800	243,000 [r]
July	62,200	6,780	30,200	19,100	3,600	79,000	80,800	220,000
August	65,700	8,640 [r]	23,100	22,600 [r]	3,600	61,600	66,400	186,000 [r]
September	71,600	7,830	15,100	24,700	3,600	49,500	59,000	160,000

[p]Preliminary. [r]Revised.

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

[2]Copper content of blister and other materials in transit and in process of refining.

[3]Stocks of refined copper as reported; no estimates are made for nonrespondents.

[4]Monthly estimates based on reported and 2002 annual data, comprising stocks at ingot makers, chemical plants, foundries, and miscellaneous manufacturers.

[5]Commodity Exchange Inc., New York.

[6]London Metal Exchange Ltd., U.S. warehouses.

TABLE 12
AVERAGE PRICE OF COPPER IN THE UNITED STATES
AND ON THE LONDON METAL EXCHANGE

(Cents per pound)

Period	U.S. producers delivered price cathode[1]	Comex first position[2]	LME cash price Grade A
2003:			
September	86.030	81.840	81.152
October	92.290	88.104	87.099
November	96.867	92.681	93.215
December	103.917	99.731	99.831
Year	85.247	81.050	80.684
2004:			
January	114.336	110.150	109.911
February	129.302	125.116	125.144
March	138.323	134.137	136.439
April	133.646	128.481	133.694
May	126.097	120.968	123.960
June	126.008	120.862	121.832
July	132.078	126.812	127.342
August	133.015	127.752	129.064
September	136.680	131.414	131.283
January - September	129.943	125.077	126.519

[1]Listed as "U.S. producer cathode."

[2]Listed as "Comex high grade first position."

Sources: Platts Metals Week and American Metal Market.

TABLE 13
NEW YORK AVERAGE BUYING PRICES FOR COPPER SCRAP

(Cents per pound)

Month	Brass mills No. 1 scrap	Refiners No. 2 scrap	Dealers (New York) No. 2 Scrap	Dealers (New York) Red brass turnings and borings
2003:				
September	81.96	72.75	54.43	38.00
October	87.09	77.89	55.18	38.00
November	92.22	82.81	59.44	38.44
December	98.76	89.69	67.00	46.00
Year	80.17	70.42	52.70	38.65
2004:				
January	108.80	98.38	72.60	50.20
February	124.08	112.66	75.84	52.37
March	132.89	118.57	91.00	60.30
April	127.30	107.18	90.91	58.82
May	119.65	96.28	89.00	55.00
June	119.82	96.55	89.00	55.00
July	125.52	101.33	89.00	55.00
August	126.64	101.73	89.00	55.00
September	127.29	106.19	89.00	55.00
January - September	123.55	104.32	86.15	55.19

Source: American Metal Market.

TABLE 14

U.S. IMPORTS FOR CONSUMPTION OF COPPER (UNMANUFACTURED), BY CLASS[1]

(Metric tons, copper content)

Country or territory	Ore and concentrate			Matte, ash and precipitates			Blister and anodes			Refined		
		2004			2004			2004			2004	
	2003	August	January - August	2003	August	January - August	2003	August	January - August	2003	August	January - August
Brazil	--	--	--	--	--	--	(2)	--	--	11,800	--	1,510
Canada	86	--	--	187	--	38	83,600	4,650	48,600	218,000	25,400	176,000
Chile	4,940	--	--	--	--	--	45,200	5,220	25,800	348,000	33,700	207,000
Germany	--	--	--	59	--	--	--	--	--	8,530	2,640	13,600
Japan	--	--	--	--	--	--	(2)	(2)	19	5,020	493	3,150
Mexico	22,000	--	22,400	501	17	154	10,200	1,200	5,230	21,600	--	8,740
Namibia	--	--	--	--	--	--	17,700	--	7,710	--	--	--
Peru	--	--	--	--	--	--	5	--	1,510	258,000	16,300	109,000
Taiwan	--	--	--	699	116	771	--	--	--	--	--	(2)
United Kingdom	--	--	--	--	--	--	2	(2)	3	10,100	17	27
Other	--	--	--	54	--	36	23	--	13	1,220	30	350
Total	27,100	--	22,400	1,500	133	999	157,000	11,100	88,800	882,000	78,700	519,000

-- Zero.

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

[2]Less than 1/2 unit.

Source: U.S. Census Bureau.

TABLE 15
U.S. EXPORTS OF COPPER (UNMANUFACTURED), BY CLASS[1]

(Metric tons, copper content)

Country or territory	Ore and concentrate			Matte, ash and precipitates			Blister and anodes			Refined		
		2004			2,004			2004			2004	
	2003	August	January - August	2003	August	January - August	2003	August	January - August	2003	August	January - August
Belgium	87	6	6	39	--	6	--	--	516	2	--	998
Canada	7,540	416	14,800	6,740	1,750	12,500	17,200	1,430	17,200	2,100	162	1,370
China	1,380	--	419	153	--	52	567	20	247	71,600	--	19,300
Costa Rica	--	--	--	3	--	--	1	--	--	254	6	1,300
Germany	--	--	32	-[2]	--	18	441	40	611	185	6	64
Hong Kong	27	--	186	74	--	12	2,650	277	2,350	52	--	3
India	--	20	56	175	--	20	118	4	119	1,370	297	2,220
Italy	--	--	--	5	--	--	219	43	97	81	--	21,100
Japan	107	2,440	2,460	40	16	55	85	20	440	251	-[2]	49
Korea, Republic of	--	--	23	12	--	6	788	--	5,660	742	46	3,220
Mexico	224	--	114	8,090	214	2,020	252	6	47	12,200	8,280	13,900
Saudi Arabia	--	--	--	--	--	--	--	--	--	28	--	7,840
Singapore	6	--	--	4	1	5	478	60	469	71	--	39
Taiwan	11	--	96	--	--	5	1,270	60	898	3,630	13	28,500
United Arab Emirates	4	--	5	4	--	5	503	155	502	4	--	--
United Kingdom	41	--	13	77	7	60	430	20	317	42	497	564
Other	438 [r]	138	315	219 [r]	2	215	1,120 [r]	163	1,580	749 [r]	38	2,480
Total	9,860	3,020	18,500	15,600	1,990	15,000	26,100	2,300	31,000	93,300	9,350	103,000

[r]Revised. -- Zero.

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

[2]Less than 1/2 unit.

Source: U.S. Census Bureau.

TABLE 16

U.S. COPPER SCRAP TRADE[1]

(Metric tons, gross weight)

Country or territory	Imports						Exports					
	Unalloyed			Alloyed			Unalloyed			Alloyed		
		2004			2004			2004			2004	
	2003	August	January - August	2003	August	January - August	2003	August	January - August	2003	August	January - August
Belgium	--	--	--	46	--	--	2,630	539	2,580	6,010	701	5,590
Canada	4,130	396	3,890	37,300	3,440	29,900	21,200	2,540	21,600	17,500	1,230	9,080
China	--	--	--	824	18	251	225,000	22,700	139,000	245,000	19,200	157,000
Costa Rica	921	128	893	404	101	299	--	--	--	6	--	--
Dominican Republic	1,100	36	414	766	46	302	--	--	--	4	--	--
El Salvador	62	50	463	468	7	185	--	--	--	--	--	--
Germany	19	--	2	5,250	--	1,100	7,900	872	5,600	7,680	1,430	8,270
Guatemala	474	40	256	869	148	583	--	--	--	--	--	--
Honduras	534	172	754	488	65	436	--	--	--	--	--	--
Hong Kong	--	(2)	(2)	--	--	--	2,530	130	3,280	9,600	382	7,440
India	--	--	--	18	--	--	5,550	305	3,340	45,400	5,190	32,800
Japan	77	4	49	261	3	63	6,790	460	5,180	9,110	1,040	6,640
Korea, Republic of	--	--	--	21	--	--	25,400	1,530	16,900	15,500	1,110	12,000
Malaysia	--	--	--	272	--	113	3,620	37	432	88	--	44
Mexico	9,950	1,000	6,640	18,700	1,760	15,000	3,200	867	3,490	808	80	1,070
Taiwan	--	--	--	462	37	1,390	8,500	1,130	7,340	6,860	1,170	10,100
United Kingdom	278	41	332	781	36	745	97	--	20	857	483	3,160
Venezuela	159	31	191	957	25	173	--	--	72	--	--	--
Other	1,900	156	1,040	3,100	556	2,660	2,940	655	1,300	9,070	968	7,510
Total	19,600	2,060	14,900	71,000	6,250	53,200	316,000	31,700	210,000	373,000	33,000	261,000

-- Zero.

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

[2]Less than 1/2 unit.

Source: U.S. Census Bureau.